

**REMARKS**

The examiner is thanked for a thorough examination of the present patent application.

I. CLAIM 29

Claim 29 was rejected under 35 USC 103(a) as being unpatentable over Dantu et al. (US 6,532,088 B1, hereinafter "Dantu") in view of Blair et al. (US 6,414,767 B1 hereinafter "Blair"). The applicant respectfully traverses.

For a valid rejection under 35 U.S.C. 103(a), "[t]he **examiner bears the initial burden** of factually supporting any *prima facie* conclusion of obviousness." MPEP Edition 8 Revision 2, Sec. 2142 (italic in the original; bold added). "The PTO bears the burden of establishing a case of *prima facie* obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966),

"To establish a *prima facie* case of obviousness, three basic criteria must be met. **First**, there **must** be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. **Second**, there **must** be a reasonable expectation of success. **Finally**, the prior art reference (or references when combined) **must** teach or suggest all the claim limitations." MPEP Edition 8 Revision 2, Sec. 2142 (italic in the original; bold added), citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The applicant respectfully submits that the rejection of Claim 29 is procedurally and substantively insufficient. Nonetheless, the applicant currently amends Claim 29, without prejudice, to recite the present invention in even more clarity.

Claim 29, as currently amended, recites an optical network of a plurality of optical nodes where each node is (1) similarity configured to the others nodes, (2) collects its connection information and (3) forwards the connection information to a router that is not one

of the nodes. The applicant respectfully submits that the present invention, as recited in Claim 29, currently amended, is not rendered obvious by the cited prior art references for at least the following reasons:

Firstly, in the present invention, each of the nodes of the optical network is similarity configured to the other nodes and collects the connection information of its own connections. In contrast, in the Dantu reference, a special “central node 300” is dissimilarity configured compared to a plurality of other “forwarding nodes” which are “not required to have full IP router functionality.” Dantu column 8 lines 40-46, Figure 3.

Secondly, in the present invention, each node determines its own connection information from signals received via its ports. In contrast, in the Dantu reference, the central node 300 collects and analyzes all connection information for the entire network (Dantu column 8 lines 40-46). For this reason, the network mapping process (to determine connections of each port of each node) takes longer time compared to the time it would take for each node to determine its own connection as disclosed in the present invention. This is especially true when the number of nodes, N, becomes large.

Finally, in the present invention connection information is sent **from each node to a router** that maintains the routing table for the entire network. In contrast, in the Dantu reference, the routing table is sent **from its “central node 300” to each node**.

Even if the Dantu reference is combined with the Blair reference to include light source, light detector, or both, these references do not teach all the limitations of Claim 29. Accordingly, the applicant respectfully submits that Claim 29, currently amended, is allowable over the cited references.

## II. CLAIMS 30-38

Claim 30 is cancelled herein obviating the rejection.

Claim 31 was rejected under 35 USC 103(a) as being unpatentable over the Dantu reference in view of the Blair reference and further in view of Bhat et al. (US 5,684,959 hereinafter “Bhat”) and modification. The applicant respectfully traverses. The applicant

respectfully submits that the rejection of Claim 31 is procedurally and substantively insufficient. Nonetheless, the applicant currently amends Claim 31, without prejudice, to recite the present invention in even more clarity.

Claim 31, currently amended, depends on Claim 29. The applicant respectfully submits that the Claim 31 is allowable over the cited reference for at least the same reasons for which Claim 29 is allowable. See, e.g., *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Further, applicant respectfully submits that Dantu and Bhat should not and cannot be combined. This is because they teach away from each other. For example, Dantu teaches that routing table and connection information is sent from its “central node 300” to other “forwarding nodes” as already discussed above. In contrast, Bhat teaches that connection information is sent from the nodes to the router. The directions of information flow in these references are inapposite each other.

Claims 32 and 33 were rejected under 35 USC 103(a) as being unpatentable over the Dantu reference in view of the Blair reference and further in view of the Bhat reference. The applicant respectfully traverses. The applicant respectfully submits that the rejection of Claims 32 and 33 is procedurally and substantively insufficient. Nonetheless, the applicant currently amends Claims 32 and 33, without prejudice, to recite the present invention in even more clarity. Claims 32 and 33, currently amended, depend on Claim 29. The applicant respectfully submits that the Claims 32 and 33 are allowable over the cited reference for at least the same reasons for which Claim 29 is allowable. See, e.g., *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Claims 34-38 are cancelled herein obviating the rejection.

### III. NEW CLAIMS 39-43

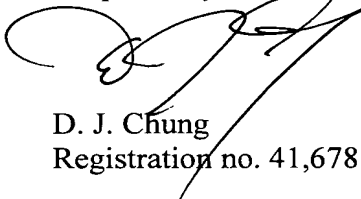
Claims 39-43 are presented as new claims with Claim 39 being independent. The applicant respectfully submits that the new claims are patentable over the prior art references cited for a number of reasons. For example, the new claims recite a method where three similarly configured nodes interoperate to allow each node to determine its connection

information and forward this to a router that is not a node. The cited references, individually or in any combination, do not teach the method recited in the new claims.

**CONCLUSION**

In view of the foregoing Remarks, the applicants respectfully submit that the entire application is in condition for allowance. The applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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May 23, 2005

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